Results: 173 paediatric appendicectomies were performed, 29(16.8%) laparoscopically. LA was associated with older children(15yrs vs 11yrs,p<0.001) and females(23(79.3%) vs 53(37.2%),p<0.001). Those that underwent LA had lower pre-operative inflammatory markers(White Blood Cells: 11.74x10^9/l vs 14.41x10^9/l,p=0.012, Neutrophils: 8.93 x10^9/l vs 11.41x10^9/l,p=0.024)). Pre-operative imaging and time to theatre was increased in LA(13(44.8%) vs 13(9.1%),p<0.001) and(1 day vs 0 days,p<0.001) respectively. In the presence of a normal appendix, the incidence of finding an alternative cause for symptoms was similar in both groups(2(33.3%) vs 7(36.8%),p=1) and post-operative LOS was comparable(2(0-25)days vs 2(1-10)days,p=0.729).
Conclusions: The above suggests diagnostic uncertainty when employing LA. LA does not affect post-operative LOS and does not aid identification of alternative pathology in the absence of appendicitis. In a DGH paediatric setting LA appears to be used as a diagnostic aid in cases of uncertainty rather than routine procedure of choice.

0770: RATE AND INFLUENCING FACTORS OF NEGATIVE APPENDICECTOMY IN THE PAEDIATRIC POPULATION

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Aim: Appendicitis is the most common paediatric surgical emergency. We aim to analyse the rate of negative appendicectomy in the paediatric population and elucidate its associations.
Methods: A single-centre retrospective case-note analysis was performed from June 2008 to October 2012, on all children that underwent an appendicectomy.
Results: 173 appendicectomies were performed. 42(24.3%) were histologically negative for appendicitis and 14(8.1%) were perforated. Negative appendicectomy was associated with female gender (35.5% vs 15.5%, p<0.001), lower inflammatory markers ((WBC(9.73x10^9/l vs 15.3x10^9/l, p<0.001), (neutrophils (6.1x10^9/l vs 12.6x10^9/l, p<0.001)), (CRP (0.5mg/l vs 34.9mg/l, p<0.001)), pre-operative imaging (48.1% vs 19.9%, p=0.002) and longer time to theatre (1 day vs 0 days, p<0.001). Negative appendicectomy was more prevalent in laparoscopy, but did not reach statistical significance (37.9% vs 21.7%, p=0.063). Correlation between macroscopic and histological findings was high, with 85.2% of those macroscopically normal confirmed on histology, and inflammation confirmed in 87.1%.
Conclusion: We demonstrate a low perforation rate but a significant negative appendicectomy rate. The association with female gender, lower inflammatory markers and increased use of pre-operative imaging is suggestive of diagnostic uncertainty. These cases may benefit from longer observation periods and consideration of alternative pathology. Removal of a normal appendix during laparoscopy remains controversial.

0776: EVALUATING THE OUTCOME OF CONGENITAL TALIPES EQUINOVARUS TREATED BY THE PONSETI METHOD

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Aim: The Ponseti method has become the primary treatment of Congenital Talipes Equinovarus (CTEV). However, current methods of clinical assessment are subjective and often hard to repeat. Integration of biomechanical evaluation could improve monitoring of disease progression as it can provide objective and quantifiable data. This study aims to evaluate the long-term outcome of Clubfeet treated with the Ponseti method using long term clinical, functional and biomechanical assessment.
Methods: Seventeen children were assessed in this study. The IMAR Clubfoot scale grades clinical and functional outcomes using questionnaires and clinical examination. Biomechanical parameters were evaluated using digital foot pressure and gait analysis systems.
Results: All subjects scored highly in clinical and functional outcomes. Despite this, biomechanical studies have been able to identify subtle abnormalities that were unapparent on clinical examination and may suggest residual deformity.
Conclusions: A foot which scores well clinically and functionally is not necessarily normal biomechanically. Biomechanical investigation can identify sub-clinical abnormalities. It is therefore recommended that a combined clinical, functional and biomechanical assessment be used to monitor the progress of CTEV after treatment with the Ponseti method. This will help to track the progression of the Clubfoot deformity and enable early identification of relapse.

0791: CAN WE UPSET THE UPSIT (UPDATING THE PAEDIATRIC SURGICAL INSTRUMENTS TRAYS)?

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Aim: Although paediatric surgical instrument trays were traditionally designed to cover most elective and emergency procedures, we observed that a significant number of instruments remained unused. We aimed to identify whether customising our trays would cover the needs of the surgeon for certain elective procedures, and estimated if this would increase theatre efficiency by reducing the time spent on instrument count and overall costs.
Method: A prospective collection of data from 10 of each of our 5 most common elective procedures was undertaken. For each, we identified the percentage of instruments used, the cost related to processing the existing tray, the time needed to perform the required count and the additional instruments requested.
Results: Overall, 28.12% of instruments were used: circumcision 21.87%, Hypospadias repair 26.56%, PPV ligation 28.12%, Umbilical Hernia Repair 25%, orchidopexy 28.12%). A median of 85 and 61 seconds was recorded in each of the performed counts. Additional instruments required included a bone cutter for circumcision and microvascular instruments for hypospadias repair. The annual processing cost was calculated as £22,420.
Conclusion: Based on findings, we designed a new customised paediatric set for our common elective procedures containing 30 instruments. This is estimated to reduce annual costs by 36%.

0842: ARE WE PROVIDING A SATISFACTORY PAEDIATRIC SURGICAL OUT-PATIENT SERVICE? (AUDIT RESULTS OF A PATIENT SURVEY)

Parnika Sharma, Amy Hanley, Samuel Ogunbiyi, Paul Jackson, Shalinder Singh. *Dept of Paediatric Surgery, Nottingham University Hospital, Nottingham, UK.*
Aims: To audit the stresses around 'waiting to be seen' in the Paediatric surgical out-patient department of a teaching hospital.
Methods: Patient satisfaction questionnaires were administered to parents/carers attending the paediatric surgical outpatient department over a five week period. Responses were then compared with the guidelines recommended by the Royal College of Physicians in the document 'how friendly is your out-patient department' (2004). A minimum standard of 67%, was set for each parameter assessed.
Results: 120 patient satisfaction surveys were administered. Ninety-nine responses were obtained (82.5%). Patients were satisfied with the overall hospital facilities (76%), the children's play area (73%) and the information provided during their clinical consultation (80%). They also found the staff approachable and identifiable (80%). They were dissatisfied with the waiting time to see a doctor (62%), and how well they were kept informed if the clinic was running late (43%).
Conclusions and recommendations: The main cause of stress to patients in the paediatric surgical out-patient is lack of communication about how late a clinic is running. Staff awareness and training may lead to an improvement in this.

0845: RE-INTERVENTION RATE POST PAEDIATRIC APPENDICECTOMY. DO WE MEET THE MARK? (5 YEAR AUDIT DATA AGAINST THE NEW NATIONAL STANDARD)

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Background and Aims: Results from the recent UK national appendicectomy audit suggest a wide variation in outcomes from different units. The re-admission rates over a five year period, from a single paediatric specialist centre in the UK are audited against this standard
Methods: Data was retrieved from a theatre computer system of all paediatric patients that underwent an appendicectomy over a five year period (August 2007 - July 2012). All data was cross-checked on the hospital computer system for patient re-admission and clinical investigation reporting. The case notes of all patients re-admitted following discharge from hospital, were retrieved

Results: 496 patients underwent appendicectomy during the study period (August 2007-August 2012). Twenty-two patients (4.4%) were re-admitted within 30 days of their initial operation. 15 patients (3%) had intra-abdominal collections, (national average was 7.9%) and required re-intervention. 14 patients were treated with antibiotics alone, and 1 required percutaneous drainage and subsequent laparotomy. Streptococcus milleri and E.Coli were present in 47% of patients with postoperative collections
Conclusions and recommendations: Large variation exists between these 5 year results, and the published national data. Reasons for this may be multi-factorial. Results suggest that most children with intra-abdominal collections post appendicectomy can be managed with antibiotics alone.

0875: APPLICATIONS OF TUBE STOMAS IN THE PAEDIATRIC SURGICAL POPULATION

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Formation of a tube stoma comprises purse-string suture of bowel around a catheter. The bowel is secured to the abdominal wall, and the catheter brought out through the fascia. This technique has been described in the management of short bowel syndrome. It reduces the length of bowel required to form stomas, diverts the proximal enzyme-rich effluent away from the skin and enables controlled dilatation of the proximal bowel for future surgical reconstruction. We aimed to investigate whether such stomas might be effective in managing other groups of patients requiring proximal stoma formation.

Three neonates with proximal jejunal atresia underwent formation of tube jejunostomy at initial laparotomy. Size discrepancy between the proximal dilated bowel and distal atretic segment precluded primary anastomosis and would have increased the risk of prolapse in a spouted stoma. Additional considerations were preservation of residual bowel length and protection of skin.

The procedures were well tolerated. No skin excoriation was evident and proximal effluent was successfully recycled distally. This permitted enteral feeding, thus avoiding prolonged parenteral nutrition, promoting bowel adaptation and reducing risk of infection.

Tube stoma intervention can be extended to other paediatric surgical conditions, in which it facilitates progression to enteral feeding and prevents complications.

0884: THE COSTS OF LATE DETECTION OF DEVELOPMENTAL DYSPLASIA OF THE HIP

Timothy Woodacre, Anil Dhadwal, Peter Cox. *Princess Elizabeth Orthopaedic Centre, Exeter, Devon, UK.*

Background: Debate exists regarding the economic viability for screening for developmental hip dysplasia in infants.
Methods: A retrospective study of infant hip dysplasia from 1998 - 2008 (36,960 live births) was performed to determine treatment complexity and costs of disease detection and treatment, related to the age at presentation and treatment modality.
Results: 179 infants (4.8/ 1000) presented with hip dysplasia. 34 infants presented late (>3 months of age) and required closed or open reduction. 145 infants presented at <3 months of age, 14 of whom failed early pavlik harness treatment. A detailed cost analysis revealed: 131 early presenters with successful pavlik harness management, costing £601/ child. 34 late presenters who required surgery (36 hips, 19 closed/ 17 open reductions, 1 revision procedure), costing £4352/ child. 14 early presenters with failed pavlik harness management requiring more protracted surgery (18 hips, 4 closed/ 14 open reductions, 7 revision procedures), costing £7052/ child.
Conclusions: Late detection increases treatment complexity and a seven-fold increase in short-term costs, compared to early detection and successful management in a pavlik harness. However improved strategies are needed for the 10% of early presenting infants who fail pavlik harness treatment and require the most complex and costly interventions.

1085: MANAGEMENT AND OUTCOMES OF APPENDIX MASS IN YOUNG ADULTS: SHOULD WE BE LOOKING TO EXCLUDE APPENDIX MASS IN ADULTS?

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Aim: In paediatric patients presenting with a history to suggest appendix mass, ultrasound scan is the investigation of choice. Treatment consists of five days of intravenous antibiotics followed by a repeat ultrasound scan to assess for resolution. Surgery is associated with high complication rates of up to 26.3 %. In the adult population, patients are not actively investigated for appendix mass prior to surgery. The aim of the study is to evaluate the outcomes of young adults with appendix mass undergoing appendicectomy.
Methods: All patients aged between 16 and 20 years admitted over a 5 year period were included. Retrospective review of the notes identified patients diagnosed with appendix mass clinically, radiologically or intra-operatively. Primary outcome is complication rate. Secondary outcomes included length of hospital stay, and days of abdominal pain.
Results: 43 patients were entered, 11 met the inclusion criteria. 44% of patients had complications. Median length of stay, and days of abdominal pain were 7 and 3 days respectively.
Conclusion: Operative treatment for appendix mass carries a high complication rate in young adults. Early investigation, including a low threshold for ultrasound scan and initial conservative treatment may reduce complications in these patients.

1168: THE IMPACT OF LAPAROSCOPY ON PYLOROMYOTOMY

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Introduction: Randomised controlled trials suggest that laparoscopic pyloromyotomy (LP) is superior to open pyloromyotomy (OP) with benefits including shorter length of stay. We reviewed process and outcomes over 20 months following introduction of LP in our centre.
Methods: Retrospective single centre comparison of LP vs OP for operation duration, length of stay and complications.
Results: 119 cases assessed over 18 months (89 OP, 30 LP). Median pre-operative stay was longer for LP (1.19 days vs. 1.83 days (LP), p=0.024). Median post-operative stay was shorter for LP (1.76 days (OP) vs. 1.14 days (LP) p=0.034). Overall length of stay was no different (median 3.05 days OP vs 3.29 days LP, p=0.64). Median operation duration was 33.0 minutes (OP) vs. 44.5 minutes (LP) p=0.07. There was no difference in the complication rates (p=0.36).
Conclusions: Laparoscopic pyloromyotomy is not associated with a higher rate of complications. LP had shorter length of post-operative stay but a longer pre-operative stay. This might reflect institutional factors such as staff training and equipment availability.

1286: EPIDIDYMO-ORCHITIS – ARE WE MANAGING THESE CASES APPROPRIATELY?

Lara Bone, Thomas Saunders, Oliver Gee. *Birmingham Children's Hospital, Birmingham, UK.*

Aim: Epididymo-orchitis is a common cause of acute scrotal pain and can be a presenting symptom of structural urinary tract abnormalities. We audited the management of patients presenting to Birmingham Children's Hospital with epididymo-orchitis in accordance with European Society for Paediatric Urology guidelines.
Methods: We examined admission notes, microbiology investigations, radiology results and, if indicated, operative notes of patients presenting between January 2009 and October 2012 (n=42). The age range was 1 month to 16 years.
Results: Of patients diagnosed with epididymo-orchitis 35% had a urine sample sent for MC&S. Of these, only 27% had a positive urine culture; the predominant organism was E.coli. The majority of patients (76%) were diagnosed following scrotal exploration; a quarter of wound swabs grew E. coli. Following diagnosis, 39% of patients went on to have a renal tract ultrasound, of which only 8% were found to have an abnormality that may have contributed to their presentation. None of these patients have re-presented.
Conclusions: We demonstrated that in a first presentation of epididymo-orchitis, where the urine culture is negative, further renal tract imaging may not be necessary. This highlights the importance of sending appropriate microbiology specimens.

1422: INCIDENCE OF METACHRONOUS INGUINAL HERNIA

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